January 2023 CSE216: Database Sessional

Online Assignment on PL/SQL

Subsection: A1

Time: 30 minutes

Create the following table.

```
CREATE TABLE EMP_SAL_LOG (
    LOG_ID NUMBER,
    EMPLOYEE_ID NUMBER,
    OLD_SALARY NUMBER,
    NEW_SALARY NUMBER,
    MOD_DATE DATE,
    USER_ID NUMBER,
    USERNAME VARCHAR2(100),
    STATUS VARCHAR2(10)
);
```

1. Write a PL/SQL trigger that will fire only when one or more employees have been added to or removed from the EMPLOYEES table. The trigger should populate the EMP_SAL_LOG table with corresponding values. The `STATUS` should be `'APPROVED'`. `MOD_DATE` is the current date. `LOG_ID` should be incremented sequentially (starting from 1). Keep the irrelevant fields null. You may consider that `EMPLOYEE_ID` will always be unique during insertion into the EMPLOYEES table.

2. Write another PL/SQL trigger that will fire only when the salary of an existing employee is updated. The trigger should populate the EMP_SAL_LOG table with corresponding values. You must ensure that salary is not changed in either of the following cases.
    a. If the last update was less than one month ago.
    b. If the increment or decrement is more than 20%.

    In any of these cases, users should be informed like '`SALARY UPDATE FAILED`' and `STATUS` should be `'DENIED'`. Otherwise `STATUS` should be `'APPROVED'`. `MOD_DATE` is the current date. `LOG_ID` should be incremented sequentially.

You may check the following query.

```
SELECT * FROM ALL_USERS WHERE USER_ID = USERENV('SCHEMAID');
```

While testing you may try modifying the `MOD_DATE`:

```
UPDATE EMP_SAL_LOG SET MOD_DATE = (MOD_DATE - ##) WHERE LOG_ID = ##;
```

Here, `##` is any integer.